

AMENDMENTS TO THE CLAIMS

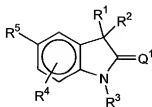
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

2(Previously Presented). The method according to claim 4, wherein said compound of formula I and said selective estrogen receptor modulator are delivered in a single composition.

3(Previously Presented). The method according to claim 4, wherein said compound of formula I and said selective estrogen receptor modulator are delivered separately.

4(Currently Amended). A method of inducing contraception comprising delivering to a female of child-bearing age a composition comprising a compound of formula I in a regimen which involves delivering a pharmaceutically effective amount of one or more selective estrogen receptor modulator selected from the group consisting of EM-800, EM-652, raloxifene hydrochloride, arzoxifene, lasofoxifene, droloxifene, tamoxifen citrate, 4-hydroxytamoxifen citrate, clomiphene citrate, toremifene citrate, pibendoxifene, idoxifene, levormeloxifene, centchroman, nafoxidene, and bazedoxifene to said female, wherein formula I is:



I

wherein:

~~R¹ and R² are joined to form a ring selected from the group consisting of~~

$-\text{CH}_2(\text{CH}_2)_n\text{CH}_2-$, $-\text{CH}_2\text{CH}_2\text{C}(\text{CH}_3)_2\text{CH}_2\text{CH}_2-$, $-\text{O}(\text{CH}_2)_m\text{CH}_2-$, $-\text{O}(\text{CH}_2)_p\text{O}-$,

$-\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2-$, $-\text{CH}_2\text{CH}_2\text{N}(\text{H})\text{CH}_2\text{CH}_2-$, and $-\text{CH}_2\text{CH}_2\text{N}(\text{alkyl})\text{CH}_2\text{CH}_2-$;

m is an integer from 1 to 4;

n is an integer from 1 to 5;

p is an integer from 1 to 4;

or R^1 and R^2 form a double bond to $\text{C}(\text{CH}_3)_2$, $\text{C}(\text{cycloalkyl})$, O , or $\text{C}(\text{cycloether})$;

R^3 is selected from the group consisting of H , OH , NH_2 , C_1 to C_6 alkyl, substituted C_1 to C_6 alkyl, C_3 to C_6 alkenyl, substituted C_3 to C_6 alkenyl, alkynyl, substituted alkynyl, and COR^A ;

R^A is selected from the group consisting of H , C_1 to C_3 alkyl, substituted C_1 to C_3 alkyl, C_1 to C_3 alkoxy, substituted C_1 to C_3 alkoxy, C_1 to C_3 aminoalkyl, and substituted C_1 to C_3 aminoalkyl;

R^4 is selected from the group consisting of H , halogen, CN , NH_2 , C_1 to C_6 alkyl, substituted C_1 to C_6 alkyl, C_1 to C_6 alkoxy, substituted C_1 to C_6 alkoxy, C_1 to C_6 aminoalkyl, and substituted C_1 to C_6 aminoalkyl;

R^5 is a five membered heterocyclic ring having 1, 2, or 3 heteroatoms selected from the group consisting of O , S , SO , SO_2 and NR^6 and having one or two independent substituents from the group consisting of H , halogen, CN , NO_2 , C_1 to C_4 alkyl, substituted C_1 to C_4 alkyl, C_1 to C_3 alkoxy, substituted C_1 to C_3 alkoxy, C_1 to C_3 aminoalkyl, substituted C_1 to C_3 aminoalkyl, COR^D , and CSR^D , and NR^ECOR^D ;

R^D is H , NH_2 , C_1 to C_3 alkyl, substituted C_1 to C_3 alkyl, aryl, substituted aryl, C_1 to C_3 alkoxy, substituted C_1 to C_3 alkoxy, C_1 to C_3 aminoalkyl, or substituted C_1 to C_3 aminoalkyl;

R^E is H , C_1 to C_3 alkyl, or substituted C_1 to C_3 alkyl;

R^6 is H , or C_1 to C_3 alkyl, substituted C_1 to C_3 alkyl, or C_1 to C_4CO_2 alkyl;

Q^1 is S ;

or a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

5(Previously Presented). The method according to claim 4, wherein said compound is delivered at a daily dosage of about 0.1 to about 50 mg.

6(Previously Presented). The method according to claim 4, wherein said regimen comprises delivering said composition daily for 1 to about 21 days, wherein said regimen is a cycle which is repeated monthly.

7(Previously Presented). The method according to claim 4, wherein said selective estrogen receptor modulator is delivered at a daily dosage of about 0.2 to about 100 mg.

8(Canceled).

9(Previously Presented). The method according to Claim 4, wherein R^1 and R^2 are joined to form the $CH_2(CH_2)_nCH_2$ ring; n is 3; R^3 and R^4 are H; R^5 is the five membered ring having the structure:



U is O, S, or NR^6 ;

X' is selected from the group consisting of halogen, CN, NO_2 , $CONH_2$, and $CSNH_2$, COR^B , CSR^B , C_1 -to- C_3 alkyl, and C_1 -to- C_3 alkoxy;

R^B is C_1 -to- C_3 aminoalkyl or substituted C_1 -to- C_3 aminoalkyl, wherein said aminoalkyl is $NH(alkyl)$ or $N(alkyl)_2$;

Y' is selected from the group consisting of H, halogen, and C_1 -to- C_4 alkyl, wherein said halogen is F.

10-11(Canceled).

12-13(Canceled).

14(Currently Amended). The method according to claim 4, wherein said compound is selected from the group consisting of 4-(1',2'-Dihydro-2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-2-thiophenecarbonitrile, 4-Methyl-5-(1,2-dihydro-2-thioxospiro[cyclohexane-1,3-[3H]-indol]-5-yl)-2-thiophenethioamide, 5-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5'-yl)-1H-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-1-(tert-butoxycarbonyl)-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-1-H-pyrrole-2-carbonitrile, 5-(2'-thioxospiro[cyclohexane-1,3'-[3H]indol]-5'-yl)-1-methyl-pyrrole-2-carbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-3-thiophenecarbonitrile, 5-(1,2-Dihydro-thioxospiro[cyclopentane-1,3-[3H]indol]-5-yl)-2-thiophenecarbonitrile, 4-(3,3-dimethyl-2-thioxo-2,3-dihydro-1H-indol-5-yl)-2-furonitrile, 5-(5-Chloro-2-thienyl)spiro[cyclohexane-1,3-[3H]indol]-2(1H)-thione, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-3-furancarbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-propyl-2-thiophenecarbonitrile, 4-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-2-furancarbonitrile, 5-(1",2"-Dihydro-2"-thioxospiro[cyclohexane-1,3"-[3H]indol]-5"-yl)-4-methyl-2-thiophenecarbonitrile, 5-(1",2"-Dihydro-2"-thioxospiro[cyclohexane-1,3"-[3H]indol]-5"-yl)-2-thiophenecarbonitrile, 5-(1,2-Dihydro-2-thioxospiro[cyclohexane-1,3-[3H]indol]-5-yl)-4-n-butyl-2-thiophenecarbonitrile, and a pharmaceutically acceptable salt, tautomer, metabolite, or prodrug thereof.

15-43(Canceled).